WHAT IS CLAIMED IS:

1. A method for preparing chlorine dioxide block-removing agent in oil wells, comprising:

a. providing a tank (1), adding chlorates or stable chlorine dioxide and water into the tank (1) to make them dissolved in the tank (1) thoroughly;

b. providing a tank (2), adding acidic substances, which can be dissolved in water and produce hydrogen ion in an aqueous solution, and water into the tank (2) to make them dissolved in the tank (2) thoroughly;

c. providing a high pressure injection pump (3) which is provided with a water-feeding pipe(4) and a water-outgoing pipe(5); the said water-feeding water pipe (4) being directly connected with the tank (1), and connected with the tank (2) through a pressure pump(7) provided on the tank(2);

d. initiating the high pressure injection pump (3) and the pressure pump(7), making the solution in the tank (1) and the solution in the tank (2) entered into the high pressure injection pump(3) via the water-feeding pipe(4) and being pressured in the pump (3), then the mixed solution being entered into the oil (water) well (6) via the water-outgoing pipe(5) of high pressure injection pump(3), thereby the chlorine dioxide block-removing agent being synthesized in the well by the reaction between the chlorates and the acidic substances which can be dissolved in water and produce hydrogen ion in the aqueous solution.

2. The method according to claim1, wherein, the concentration of the aqueous solution of said chlorine dioxide block-removing agent synthesized in the well is controlled in the range of about 200mg/L to 5000mg/L.

3. The method according to claim1, wherein, the mix of the chlorate aqueous solution and acidic substances aqueous solution can be carried out at any position of the water-feeding pipe (4) of the high pressure injection pump (3).

4. The method according to claim 1, wherein, the said chlorate is selected from the group consisting of the chlorates of mono-valence and bi-valence metal cations and the chlorites of mono-valence and bi-valence metal cations.

5. The method according to claim 4, wherein, the said chlorates include sodium chlorate and potassium chlorate; the said chlorites include sodium chlorite and potassium chlorite.

6. The method according to claim 1, wherein, the said acidic substances are selected from the group consisting of the monoacids, biatomic acids and ternary acids which can be dissolved in water and can produce hydrogen ion, and the acid inorganic and organic salts which can be dissolved in water and can produce hydrogen ion.

7. The method according to claim 6, wherein, the said monoacids include hydrochloric acid, hydrofluoric acid, sulfamic acid, formic acid, lactic acid and acetic acid; the said biatomic acids include oxalic acid and tartaric acid; the said ternary acids include phosphoric acid and citric acid; the said acid salts include acid sulfate, acid phosphorate, acid carbonate and acid tartarate.

8. The method according to claim 7, wherein, the acid is phosphoric acid and the acid salts are bi-sodium phosphorate, sodium phosphorate or sodium tartarate.

9. The method according to claim 1, wherein, the tank (2) further contains an expansion-preventing agent.

10. The method according to claim 9, wherein, the expansion-preventing agent is potassium chlorate or ammonia chlorate.

11. The method according to claim 1, wherein, the tank (2) further contains a corrosion inhibitor.

12. The method according to claim 11, wherein, the corrosion inhibitor is tri-sodium phosphate, sodium hydroxide or sodium tripolyphosphate.